

Joint Industry/Government Pipeline R&D Forum

New Construction, Materials & Welding

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Minerals Management Service
Pipeline Research Projects
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MMS Pipeline Research Focus

To be able to assess the safety, risks, and reliability of offshore pipelines, the TAR Program will fund projects in the following areas/categories:

1. Corrosion of pipelines;
2. Repair and inspection of pipelines;
3. Risk assessment and reliability of pipelines;
4. Identification and mitigation of geo-hazards on pipelines; and
5. Operational development issues related to pipelines (i.e. hydrotesting, leakage).

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Strain-Based Design of Pipelines

(Edison Welding Institute)

First part of project complete as of September 2003.

The ultimate objective of this project will develop a best practice guide for the strain-based design of pipelines. It was jointly funded by the MMS and DOT/RSPA/OPS to help provide an industry need for a complete guide for on and offshore pipeline design. This final report constitutes the first of two efforts to complete the guide. The complete guide will cover design, assessment and testing guidelines for designers of pipelines that may experience high strains in service.

Final Report Available @
<http://www.mms.gov/tarphome/>

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Safe Design of Hot On-Bottom Pipelines with Lateral Buckling

(Boreas Consulting Ltd.)

Ongoing project.

This joint industry project will provide design guidance for on-bottom, hot service (single pipe and pipe-in-pipe) pipelines. It will also provide predictive models for laterally buckled pipeline behavior, innovative methods for initiating and controlling lateral buckling, investigate the integrity of single pipe and pipe-in-pipe joints through both engineering studies and full-scale testing and investigate into pipe-soil interaction for large cyclic displacements with full-scale tests, based on engineering studies.

http://www.mms.gov/tarphome/

Technology Assessment & Research (TA&R) Program - Microsoft Internet Explorer provided by Minerals M...

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**Offshore Minerals Management
Technology Assessment & Research**

Technology Assessment & Research (TA&R) Program

The TA&R Program is a research element encompassed by the MMS Regulatory Program. The TA&R Program supports research associated with operational safety and pollution prevention as well as oilspill response and cleanup capabilities. The TA&R Program was established in the 1970's to ensure that industry operations on the Outer Continental Shelf incorporated the use of the Best Available and Safest Technologies (BAST) subsequently required through the 1978 OCSLA amendments. The TA&R Program is comprised of two functional research activities:

[Operational Safety and Engineering Research \(OS&ER\)](#) [Oil Spill Research \(OSR\)](#)

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The TA&R Program has four primary objectives:

- 1. Technical Support**
Providing engineering support to MMS decision makers in evaluating industry operational proposals and related technical issues and ensuring that these proposals comply with applicable regulations, rules, and operational guidelines, and

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So Which Challenges Have Been Addressed?

- Installation of large diameter pipelines in deepwater (weight of steel)
- Vortex Induced Vibrations on Steel Catenary Risers (SCR's)
- Pipe/Soil interaction
- High temperature/pressure service (thermal buckling)
- Antiquated or lack of Codes and Standards

Thank You!

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